

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of facilitating, managing and coordinating operation of a competitive marketplace for an energy system ~~comprising generating units, load facilities, transmission lines, and multiple network areas~~ using a communication network, the method comprising the steps of:

(a) ~~electronically~~ collecting for a predetermined time interval supply side bids for quantity and price of energy services from a plurality of energy services providers over the communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

(b) ~~electronically determining receiving~~ at least one real time condition, ~~the real time condition consisting of data related to at least one of the generating units or the load facilities~~ for the predetermined time interval that is different from at least one quantity of the supply side bids or quantity of the demand side bids;

(c) ~~dispatching energy services for the predetermined time interval based on the real time condition;~~

(~~[[d]]c~~)~~electronically~~ arranging, according to price, the supply side bids from the energy service providers that dispatched energy services for the predetermined interval based on the real time condition ~~supplied energy services in step (c);~~

(~~[[e]]d~~)~~electronically~~ calculating a clearing price for the dispatched energy services ~~for all of the network areas~~ regardless of location in the energy system for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the real time condition, wherein the clearing price is a price for a supply side bid arranged in step (~~[[d]]c~~) at which quantities for supply side bids equals the energy services dispatched to the consumers ~~in step (c)~~, the clearing price being equal for the energy services dispatched to all consumers that received energy services ~~in step (c)~~; and

(((f))e) ~~electronically~~ calculating settlement information based upon the clearing price calculated in step (((e))f).

2. (Currently Amended) A method according to claim 1 further comprising step (((g))f) of creating an invoice for each of the plurality of providers and consumers from the settlement information calculated in step (((f))e) and forwarding the invoice for each providers and consumers to the provider's and consumer's work station over the Internet.

3. (Currently Amended) A method according to claim 1 wherein step (((d))c) comprises stacking the supply side bids from the energy services providers that supplied energy services ~~in step (e)~~ for the predetermined time interval from lowest price to highest; and wherein calculating the clearing price comprises matching demand for the energy services supplied with a bid in the stack.

4. (Currently Amended) The method of claim 1 further comprising step (((g))f) of collecting contract information from at least one provider and consumer.

5. (Currently Amended) The method of claim 1 wherein step (((f))e) comprises calculating accounts payable and accounts receivable.

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) The method of claim 1 wherein step (((f))e) comprises steps (((f))e)(i) of receiving meter information and (((f))e)(ii) calculating accounts payable and receivable by multiplying the received meter reading data by the clearing price calculated in step (((e))d).

9. (Currently Amended) The method of claim 1 wherein step (((f))e) comprises step (((f))e)(i) of confirming that data necessary to complete settlement for a trading interval is available.

10. (Currently Amended) The method of claim 4 further comprising step (((h))g) of collecting hourly meter reading data and wherein step (((g))f) of collecting contract information

includes step ([g])f(ii) of overriding step ([f])e and calculating settlement information based upon contract price and meter reading data.

11. (Currently Amended) The method of claim 4 further comprising step ([h])g of sending a confirmation notice to the customer over the communication network that the contract collected in step ([g])f has been accepted.

12. (Currently Amended) The method of claim 1 further comprising step ([g])f of receiving trading interval meter reading data.

13. (Currently Amended) The method of claim 12 further comprising step ([h])g of receiving monthly meter reading data.

14. (Currently Amended) The method of claim 12 further comprising step ([h])g of validating each trading interval meter reading data.

15. (Currently Amended) The method of claim 12 further comprising step ([h])g of modifying trading interval meter reading data.

16. (Original) A method according to claim 1 wherein step (a) is implemented through a graphical user interface.

17. (Original) A method according to claim 1 wherein step (a) is implemented through a bulk file upload facility.

18. (Currently Amended) A method according to claim 1 further comprising step ([g])f of viewing bid information collected in step (a).

19. (Currently Amended) A method according to claim 1 further comprising step ([g])f of modifying bid information collected in step (a).

20. (Currently Amended) A method according to claim 1 further comprising step ([g])f of verifying that a price and energy level value exist for each trading interval within a scheduled dispatch period.

21. (Original) A method according to claim 1 further comprising step (a) of collecting AGC bid data per unit per scheduled dispatch period.

22. (Currently Amended) A method according to claim 1 further comprising step ([g]) of notifying a provider and consumer that the bid information collected in step (a) is accepted.

23. (Previously Presented) A method according to claim 4 wherein the contract information has pre-determined condition associated therewith and the dispatching of the energy services is performed only if the pre-determined condition associated with the contract is met.

24. (Currently Amended) The method of claim 1 further comprising a step ([g]) of providing a market information publishing component that supplies a variety of customer informational needs.

25. (Currently Amended) The method of claim 1 further comprising a step ([g]) of providing a database population component that reorganizes data from many different sources into a common repository designed to suit providers' and consumers' needs.

26. (Currently Amended) The method of claim 25 further comprising a step ([h]) of providing a report generation component that creates a report whenever a provider and consumer so requests wherein the report generation component takes data from the database population component.

27. (Currently Amended) A system for managing and coordinating the operation of a competitive energy marketplace, the system comprising:

a processor,

a memory,

wherein the memory stores a market operator;

a power system component that represents a network model of a physical power system including generating units, load facilities, transmission lines, and network areas for dispatching energy services;

a customer component that manages ~~all~~ information about entities that have a business relationship with the market operator, wherein the power system component and customer component are operatively coupled to the market operator to receive data from the market operator;

a bid component that enables customers to submit bids for a predetermined period for energy services, wherein customers include energy services providers and energy services consumers, ~~the bid component determining an economic merit order for at least some of the bids from the energy services providers;~~

a meter reading component that stores meter readings submitted by energy services consumers, wherein the bid component and meter reading component are operatively coupled to energy services consumers;

a settlement component that ~~determines~~ receives at least one real time condition, ~~the real time condition consisting of data related to at least one of the generating units or the load facilities for the predetermined time interval that are different from at least one of the submitted bids, the settlement component determines an equal energy services clearing price for all of the network areas~~ regardless of location in the power system during the predetermined time interval based on the bids from the providers and the consumers submitted for the predetermined period and based on the real time condition for the predetermined time interval, the determining of the equal energy services clearing price being performed after dispatching the energy services in order to account for the real time condition, and that financially settles all markets based upon meter readings, operational information, bids and clearing prices, wherein the settlement component is operatively coupled to the power system, customer, bid and meter reading components to receive data therefrom; and

a bill component operatively coupled to receive data from the customer and settlement components, wherein the bill component summarizes the financial activity for each customer to be used on an invoice for services provided and/or received; and

the processor executing the components.

28. (Original) The system of claim 27 wherein the bid component enables customers to submit bids via a graphical user interface.

29. (Original) The system of claim 27 wherein the bid component enables customers to submit bids via bulk file upload facility.

30. (Original) The system of claim 27 further comprising a contract component operatively coupled to the settlement component wherein the contract component enables customers to submit contracts for services.

31. (Original) The system of claim 30 wherein the contract component enables customers to submit contracts via a graphical user interface.

32. (Original) The system of claim 30 wherein the contract component enables customers to submit contracts via a bulk file upload facility.

33. (Original) The system of claim 30 further comprising a market information publishing component that receives data from the customer, settlement, bill, meter reading, contract bid and power system components.

34. (Original) The system of claim 33 wherein the market information publishing component includes a database population component and a report generation component.

35. (Currently Amended) A method of facilitating, managing and coordinating operation of a competitive marketplace for an energy system ~~comprising generating units, load facilities, transmission lines, and multiple network areas~~ using a communication network, the method comprising the steps of:

(a) ~~electronically~~ collecting for a predetermined time interval supply side bid information for quantity and price of energy services from a plurality of energy services providers and collecting demand side bid information for quantity of energy services from a plurality of energy services consumers;

(b) ~~electronically~~ collecting contract information for energy services from at least one of the plurality of energy services providers and consumers;

(c) ~~electronically determining an economic merit order for at least a portion of the supply side bid information;~~

(([[d]]c)~~electronically determining~~ receiving at least one real time condition, ~~the real time condition consisting of data related to at least one of the generating units or the load facilities~~ for the predetermined time interval that is different from at least one quantity of the supply side bid information or quantity of the demand side bid information;

(([[e]]d)electronically scheduling the operation of units that provide the energy services according to the bid and contract information collected in steps (a) and (b), according to the real time condition, ~~and according to the economic merit order~~;

(([[f]]e) deploying the operation of the units scheduled in step (([[e]]d) in order to dispatch the energy services;

(([[g]]f) electronically collecting meter reading information from the units scheduled in step (e); and

(([[h]]g)electronically settling the market in accordance with the bid and contract information collected in steps (a) and (b), the real time condition, and meter reading information collected in step (([[g]]f), wherein settling the market comprises calculating a clearing price for energy services ~~for all of the network areas~~ regardless of location in the energy system for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the real time condition, wherein the clearing price is a price for a supply side bid at which quantities for supply side bids equals the energy services deployed in step (([[f]]e), the clearing price being equal for all energy services consumers that received energy services in step (([[f]]e).

36. (Currently Amended) The method of claim 35 further comprising step (([[i]]h) of billing the plurality of energy services consumers according to the settlement determined in step (([[h]]g).

37. (Currently Amended) The method of claim 35 further comprising step (([[i]]h) of providing the schedule determined in step (([[f]]e) to the plurality of energy services providers and consumers.

38. (Currently Amended) The method of claim 35 further comprising step (([[i]]h) of providing settlement information determined in step (([[h]]g) to the plurality of energy services providers and consumers.

39. (Currently Amended) The method of claim 35 wherein steps (a), (b) and (~~[[g]]f~~) are performed over the Internet.

40. (Currently Amended) A computer program embodied on a computer readable medium for interfacing with a competitive marketplace for an energy system ~~comprising generating units, load facilities, transmission lines, and multiple network areas~~, the computer program comprising:

computer executable code for collecting for a predetermined period supply side bids for quantity and price of energy services from a plurality of energy services providers over a communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

~~computer executable code for determining an economic merit order for at least a portion of the supply side bids;~~

computer executable code for ~~determining~~ receiving at least one real time condition, ~~the real time condition consisting of data related to at least one of the generating units or the load facilities~~ for the predetermined period that is different from at least one quantity of the supply side bids or quantity of the demand side bids;

computer executable code for scheduling operation of units that provide the energy services for the predetermined period ~~according to the economic merit order~~;

computer executable code for dispatching the energy services;

computer executable code for calculating a clearing price for the energy services ~~for all of the network areas~~ regardless of location in the energy system for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the real time condition, wherein the clearing price is a price for a supply side bid at which quantities for supply side bids equals the energy services dispatched to the consumers in the predetermined period, the clearing price being equal for all consumers that received energy services for the predetermined period; and

code for calculating settlement information based upon the clearing price calculated and the bids collected.

41. (Currently Amended) An article of manufacture for facilitating operation of a competitive marketplace for an energy system ~~comprising generating units, load facilities,~~

~~transmission lines, and multiple network areas~~, the article of manufacture comprising a computer readable medium having a management interface instructions comprising:

computer executable code for collecting supply side bids for a predetermined period for quantity and price of energy services from a plurality of energy services providers over a communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

~~computer executable code for determining an economic merit order for at least some of the supply side bids;~~

computer executable code for ~~determining~~ receiving at least one real time condition, ~~the real time condition consisting of data related to at least one of the generating units or the load facilities~~ for the predetermined period that is different from at least one quantity of the supply side bids or quantity of the demand side bids;

computer executable code for dispatching energy services for the predetermined period based on the real time condition ~~and the economic merit order~~;

computer executable code for arranging, according to price, the supply side bids from the energy services providers that supplied energy services in the predetermined period;

computer executable code for calculating a clearing price for the energy services ~~for all of the network areas~~ regardless of location in the energy system for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the real time condition, wherein the clearing price is a price for a supply side bid at which quantities for supply side bids equals the energy services dispatched to the consumers in the predetermined period, the clearing price being equal for all consumers; and

computer executable code for calculating settlement information based upon the clearing price and the bids collected.

42. (New) A method according to claim 1, wherein the energy system comprises generating units; and

wherein the real time condition comprises data related to at least one of the generating units.

43. (New) The system of claim 27, wherein the physical power system comprises generating units; and

wherein the real time condition comprises data related to at least one of the generating units.

44. (New) The method of claim 35, wherein the energy system comprises generating units; and

wherein the real time condition comprises data related to at least one of the generating units.

45. (New) The computer program of claim 40, wherein the energy system comprises generating units; and

wherein the real time condition comprises data related to at least one of the generating units.

46. (New) The article of manufacture of claim 41, wherein the energy system comprises generating units; and

wherein the real time condition comprises data related to at least one of the generating units.

47. (New) A method of facilitating, managing and coordinating operation of a competitive marketplace for an energy system comprising generating units using a communication network, the method comprising the steps of:

collecting for a predetermined time interval supply side bids for quantity and price of energy services from a plurality of energy services providers over the communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

receiving data related to at least one of the generating units for the predetermined time interval that is different from at least one quantity of the supply side bids;

arranging, according to price, the supply side bids from the energy service providers that dispatched energy services for the predetermined interval based on the data related to the at least one generating units;

calculating a clearing price for the dispatched energy services for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services in order to account for the data related to the at least one generating units, wherein the clearing price is a price for a supply side bid arranged for the

predetermined period at which quantities for supply side bids equals the energy services dispatched to the consumers in the predetermined period; and

calculating settlement information based upon the clearing price calculated.

48. (New) The method of claim 47, wherein the clearing price is calculated regardless of location in the energy system.

49. (New) A computer program embodied on a computer readable medium for interfacing with a competitive marketplace for an energy system, the computer program comprising:

computer executable code for collecting for a predetermined time interval supply side bids for quantity and price of energy services from a plurality of energy services providers over the communication network and collecting demand side bids for quantity of energy services from a plurality of energy services consumers over the communication network;

computer executable code for receiving data related to at least one of the generating units for the predetermined time interval that is different from at least one quantity of the supply side bids;

computer executable code for arranging, according to price, the supply side bids from the energy service providers that dispatched energy services for the predetermined interval based on the data related to the at least one generating units;

computer executable code for calculating a clearing price for the dispatched energy services for the predetermined time interval, the calculating of the clearing price being performed after dispatching the energy services, wherein the clearing price is a price for a supply side bid arranged for the predetermined period at which quantities for supply side bids equals the energy services dispatched to the consumers in the predetermined period; and

computer executable code for calculating settlement information based upon the clearing price calculated.

50. (New) The method of claim 49, wherein the clearing price is calculated regardless of location in the energy system.

wherein the clearance price used for calculating settlement information is not determined based on